B.Com.(B.A.) I Sem.

Data Driven Decision Making

Practical Record Work

INDEX

EXCEL

1.Define the following:

a) Workbook, Worksheet
b) Cells
c) Number of rows and columns in a worksheet
d) Excel File Extensions
e) Relative reference, absolute reference

a. Workbook, Worksheet

Workbook:

A workbook is an entire Excel file that contains one or more worksheets. By default, there are 3 worksheets.

Example: When you open Microsoft Excel, the file you work in (like studentmarks.xlsx) is called a workbook.

Worksheet:

A worksheet is a single page or sheet in a workbook where you can enter and organize data in rows and columns.

Example: Each tab (Sheet1, Sheet2, Sheet3, etc.) inside the workbook is a worksheet.

b. Cells

A cell is the intersection of a row and a column in a worksheet. Each cell can contain text, number or formula/function.

Example:

The top-left cell in a worksheet is A1 (Column A, Row 1).

c. Number of Rows and Columns in a Worksheet

Rows: 10,48,576

Columns: 16,384 (labeled from A to XFD)

So, a worksheet has 10,48,576 × 16,384 possible cells.

d. Excel File Extensions

File Type	Extension	Description
1.Excel Workbook	.xlsx	Default Excel file format
2.Excel 97–2003 Workbook	.xls	Older Excel file format
3.CSV	.csv	Comma Separated values

f. Relative Reference, Absolute Reference

Relative Reference:

A cell reference that changes when a formula is copied to another cell.

Example:

In =C2+D2+E2, if copied to the next row, it becomes =C3+D3+E3.

Absolute Reference:

A cell reference that does not change when a formula is copied.

It is marked with a dollar sign ($).

Example:

=C$2+D$2+E$2 always refers to the same cells, no matter where the formula is copied.

2. Create a data set in a new worksheet with the following columns:
S.No., Name of the Student, Date of Birth, Age as on Today, Stream, College

Instructions:

a) **Enter details for 10 students of your choice.**
b) **Ensure DOB is entered in dd-mm-yyyy format.**
c) **Keep the Age column blank for now.**
d) **Set the column headings in bold and fill them with light gray background colour.**
e) **Apply borders to the table.**

a. Enter details for 10 students of your choice

To enter details for 10 students, click on the rows below the column headings and type each student's information in the respective columns. Continue entering the remaining students one by one until all 10 records are completed.

b. Ensure DOB is entered in dd-mm-yyyy format

While entering the Date of Birth, type each date in the dd-mm-yyyy format. Make sure all DOB entries follow the same format for consistency.

c. Keep the Age column blank for now

Do not type anything in the Age as on Today column. Leave all the cells in this column empty as instructed.

d. Set the column headings in bold and fill them with light gray background colour

Select the entire heading row and go to the **Home tab**. Click **Bold (B)** in the Font group to make the text bold. Then, click the **Fill Color** button and choose a **light gray** shade to apply background color to the headings.

e. Apply borders to the table

Select the complete table including headings and student data. Go to the **Home tab → Font group → Borders** and choose **All Borders** to apply borders around every cell in the table.

Output:

S.No.	Name of the Student	Date of Birth	Age as on Today	Stream	College
1	Anil Kumar	12-03-2004		B.Com.(C.A.)	IIMC
2	Sravani Reddy	25-07-2005		BBA	IIMC
3	Mahesh Varma	09-11-2004		B.Com.(B.A.)	IIMC
4	Priya Sharma	18-01-2005		B.Sc.(DS)	IIMC
5	Kiran Teja	30-05-2004		B.Com.(C.A.)	IIMC
6	Divya Sri	14-08-2005		BBA	IIMC
7	Rohit Sai	02-02-2004		B.Com.(C.A.)	IIMC
8	Keerthana M	27-12-2005		B.Sc.(DS)	IIMC
9	Naveen Chandra	05-06-2004		B.Com.(B.A.)	IIMC
10	Abhilash	01-02-2007		B.Com.(Hons.)	IIMC

3. Copy the table created in above Question in a new sheet. Using the shortcut keys of keyboard, perform the following:

a) **Make the student name column bold and italic**
b) **Increase the font size of DOB to 14.**
c) **Fill each column with different colour of your choice with shortcut keys.**
d) **Create all borders for the table.**
e) **Create a thick border with each of the column.**

a. **Make the student name column bold and italic**

Select the "Student Name" column, then press Ctrl + B and Ctrl + I to make the text bold and italic.

b. **Increase the font size of DOB to 14.**
Select the "DOB" column, then use Alt → H → F → G repeatedly to increase the font size until it is 14.

c. **Fill each column with different colour of your choice with shortcut keys.**
For each column individually: select the column, press Alt → H → H, use the arrow keys to choose a fill colour, and press Enter to apply it.

d. **Create all borders for the table.**
Select the entire table, then press Alt → H → B → A to apply all borders around every cell in the table.

e. **Create a thick border with each of the column.**
With the table or each column selected, press Alt → H → B → T to apply a thick outside border around the selection.

Output:

S.No.	*Name of the Student*	Date of Birth	Age as on Today	Stream	College
1	***Anil Kumar***	12-03-2004		B.Com.(C.A.)	IIMC
2	***Sravani Reddy***	25-07-2005		BBA	IIMC
3	***Mahesh Varma***	09-11-2004		B.Com.(B.A.)	IIMC

4	***Priya Sharma***	18-01-2005		B.Sc.(DS)	IIMC
5	***Kiran Teja***	30-05-2004		B.Com.(C.A.)	IIMC
6	***Divya Sri***	14-08-2005		BBA	IIMC
7	***Rohit Sai***	02-02-2004		B.Com.(C.A.)	IIMC
8	***Keerthana M***	27-12-2005		B.Sc.(DS)	IIMC
9	***Naveen Chandra***	05-06-2004		B.Com.(B.A.)	IIMC
10	***Abhilesh***	01-02-2007		B.Com.(Hons.)	IIMC

4. Copy the table created in the previous question to a new worksheet and perform the following tasks:

a) Insert a new row above the table, merge the cells in that row, and enter the heading "Student Details – 2025."
b) Adjust all column widths to fit their contents.
c) Adjust all row heights to fit their contents.
d) Set the row height to 25 and the column width to 10.
e) Hide the Age column and save the file.

a. **Insert a new row above the table, merge the cells in that row, and enter the heading "Student Details – 2025."**
Copy the existing table and paste it into a new worksheet. Then insert a blank row above the table. Select all the cells in the first row and merge them. After merging, type the heading **"Student Details – 2025"** in the merged cell.

b. **Adjust all column widths to fit their contents.**
Select the entire table to adjust the column widths. Use the **AutoFit Column Width** (Home → Cells group → Format → AutoFit Column Width) option so that each column automatically expands or shrinks according to the longest content in that column.

c. **Adjust all row heights to fit their contents.**
Select all the rows of the table to adjust the row heights. Apply the **AutoFit Row Height** (Home → Cells group → Format → AutoFit Row Height) option so that each row height automatically fits the text inside the cells.

d. **Set the row height to 25 and the column width to 10.**
Increase the size of the table by changing its dimensions. Set the **Row Height** to **25** to make the rows taller, and set the **Column Width** to **10** to make each column wider.

e. **Hide the Age column and save the file.**
Locate the **Age** column in the table, select its header, and hide it using the **Hide** option. After completing all the steps, save the worksheet to store the changes.

Output:

Student Details-2025

S.No.	Name of the Student	Date of Birth	Stream	College

1	Anil Kumar	12-03-2004	B.Com.(C.A.)	IIMC
2	Sravani Reddy	25-07-2005	BBA	IIMC
3	Mahesh Varma	09-11-2004	B.Com.(B.A.)	IIMC
4	Priya Sharma	18-01-2005	B.Sc.(DS)	IIMC
5	Kiran Teja	30-05-2004	B.Com.(C.A.)	IIMC
6	Divya Sri	14-08-2005	BBA	IIMC
7	Rohit Sai	02-02-2004	B.Com.(C.A.)	IIMC
8	Keerthana M	27-12-2005	B.Sc.(DS)	IIMC
9	Naveen Chandra	05-06-2004	B.Com.(B.A.)	IIMC
10	Abhilash	01-02-2007	B.Com.(Hons.)	IIMC

5. Copy the table created in above Question in a new sheet.

a) **Mention the different data types and where are they aligned in the cell.**
b) **Align the text column to the centre.**
c) **Wrap the College Name and location.**
d) **Insert a column to the left of the table and merge all 11 rows. Give the title of the table of Student details. Align it vertically in the column created.**
e) **Align each of the column headings to angle clockwise direction.**

a. Data types and alignment

To mention the data types and their alignment, first look at the values in the table. Text data such as names and college names are usually aligned to the left side of the cell. Number data and date data are aligned to the right side of the cell.

Data Type	Default Alignment
Text	Left
Number	Right
Date	Right

b. Align the text column to the centre

To align the text column to the centre, first select the entire text column. Then go to **Home → Alignment group → Center**. This will place all the text in the middle of the cells, instead of the default left alignment, making the column look neat and uniform.

c. Wrap the College Name and location

To wrap the College Name and location column, select the whole column where the college information is typed. Then go to **Home → Alignment group → Wrap Text**. This

will make long text shift to the next line within the same cell so that the entire college name and location are visible properly.

d. Insert and merge a column with title

To insert a column to the left of the table, click on the first column of the table and choose Insert. After the new column appears, select all 11 cells in that column. Then go to **Home → Alignment group → Merge & Center to merge** them. Type "Student Details" and then use Home → Alignment group → Middle Align to align the text vertically in the center of the merged column.

e. Angle the column headings clockwise

To angle each column heading clockwise, select the entire row containing the headings. Then go to **Home → Alignment group → Orientation → Angle Clockwise**. This will tilt all the headings diagonally toward the right side, giving the table a clear and stylish appearance.

Output:

S.No.	Name of the Student	Date of Birth	Age as on Today	Stream	College
1	Anil Kumar	12-03-2004		B.Com.(C.A.)	Indian Institute of Management & Commerce
2	Sravani Reddy	25-07-2005		BBA	Indian Institute of Management & Commerce
3	Mahesh Varma	09-11-2004		B.Com.(B.A.)	Indian Institute of Management & Commerce
4	Priya Sharma	18-01-2005		B.Sc.(DS)	Indian Institute of Management & Commerce
5	Kiran Teja	30-05-2004		B.Com.(C.A.)	Indian Institute of Management & Commerce
6	Divya Sri	14-08-2005		BBA	Indian Institute of Management & Commerce
7	Rohit Sai	02-02-2004		B.Com.(C.A.)	Indian Institute of Management & Commerce
8	Keerthana M	27-12-2005		B.Sc.(DS)	Indian Institute of Management & Commerce
9	Naveen Chandra	05-06-2004		B.Com.(B.A.)	Indian Institute of Management & Commerce
10	Abhilash	01-02-2007		B.Com.(Hons.)	Indian Institute of Management & Commerce

6. Copy the table created in previous in three different sheets.

a) **Rename the sheet as "Student Details 1", "Student Details 2", "Student Details 3"**
b) **Give Tab colour as Green, Yellow and Pink to all the three tabs**
c) **Delete the sheet student details-2 from the workbook.**
d) **Create a copy of student details 3 and name it as "Student Details 4"**
e) **Save the file as "Student details" in your system.**

a. Rename the sheets

To rename the sheets, go to each sheet tab at the bottom of Excel. Right-click the first sheet and choose Rename, then type “Student Details 1”. Do the same for the next two sheets by right-clicking their tabs and renaming them as “Student Details 2” and “Student Details 3”.

b. Apply tab colours

To give tab colours, right-click on the sheet tab named “Student Details 1” and choose Tab Color. Select the Green colour. Then right-click on the “Student Details 2” tab and choose Yellow, and finally right-click on the “Student Details 3” tab and choose Red.

c. Delete Student Details 2 sheet

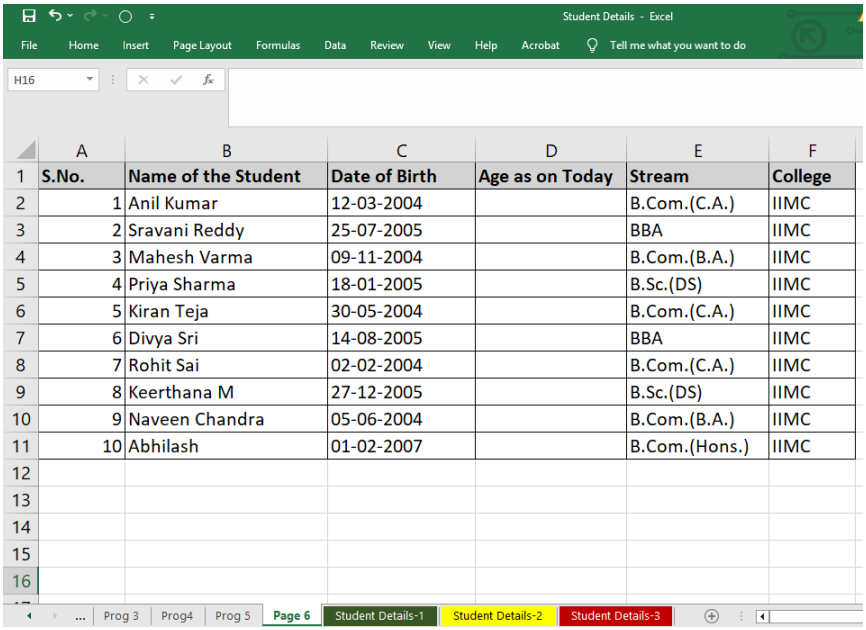
To delete the sheet “Student Details 2”, right-click on its sheet tab at the bottom of the Excel window. From the options shown, click Delete.

d. Create a copy of Student Details 3

To create a copy of the sheet “Student Details 3”, right-click on the tab and select Move or Copy. In the dialog box, check the option Create a copy and click OK. A duplicate sheet will appear and rename this new sheet as “Student Details 4” for clarity.

e. Save the file

To save the file, go to the File menu and click Save As. In the file name box, type “Student details” and choose the location where you want to store the file. Finally, click Save to save the workbook on your system.



	A	B	C	D	E	F
1	S.No.	Name of the Student	Date of Birth	Age as on Today	Stream	College
2	1	Anil Kumar	12-03-2004		B.Com.(C.A.)	IIMC
3	2	Sravani Reddy	25-07-2005		BBA	IIMC
4	3	Mahesh Varma	09-11-2004		B.Com.(B.A.)	IIMC
5	4	Priya Sharma	18-01-2005		B.Sc.(DS)	IIMC
6	5	Kiran Teja	30-05-2004		B.Com.(C.A.)	IIMC
7	6	Divya Sri	14-08-2005		BBA	IIMC
8	7	Rohit Sai	02-02-2004		B.Com.(C.A.)	IIMC
9	8	Keerthana M	27-12-2005		B.Sc.(DS)	IIMC
10	9	Naveen Chandra	05-06-2004		B.Com.(B.A.)	IIMC
11	10	Abhilash	01-02-2007		B.Com.(Hons.)	IIMC
12						
13						
14						
15						
16						

7. Create a table with 15 rows having the following details.

S.No.	Name of the student	Sem I					
		ENG	II LANG	BOM	FA-1	DDDM	TOTAL MARKS
1	Ravi Kiran S	67	88	65	66	94	380
2	Sreeja M	89	72	97	68	88	414

a. Align all details to the centre of the cell.
b. Bold the headings using short cut key.
c. Increase the font size to 16 by using short cut key
d. Use italics to the students names.
e. Give colour to the columns.

a. Align all details to the centre of the cell

To align all the details to the centre, first select the entire table. Then go to **Home → Alignment → Center.** This will shift all the text and numbers to the middle of the cell, making the table look neat and uniform.

b. Bold the headings using shortcut key

To bold the headings, select the heading row of the table. Then press **Ctrl + B** to make the text bold.

c. Increase the font size to 16 using shortcut key

To increase the font size to 16, select the area where you want to change the size. Then press **Ctrl + Shift + >** repeatedly until the font size reaches 16.

d. Use italics for the students' names

To apply italics to the students' names, select all the names in the "Name of the Student" column. Then **press Ctrl + I**. This will change the selected text to italics, giving the names a different style.

e. Give colour to the columns

To give colour to the columns, select the entire column you want to format. Then go to **Home → Fill Color** and choose the colour you want. Repeat this step for every column that needs colour so the table looks attractive and organised.

Output:

S.No.	*Name of the Student*	SEM I					
		ENG	II LANG	BOM	FA-1	DDDM	TOTAL MARKS
1	*Ravi Kiran S*	67	88	65	66	94	380
2	*Sreeja M*	89	72	97	68	88	414
3	*Anil Kumar*	78	85	69	71	90	393
4	*Priya Sharma*	82	79	74	69	87	391
5	*Mahesh Varma*	75	81	72	65	92	385
6	*Lakshmi Deepika*	90	88	95	84	91	448
7	*Rohit Reddy*	71	69	67	73	85	365
8	*Kavya Sri*	84	91	86	80	89	430
9	*Nagarjuna*	68	74	70	64	82	358

10	*Divya Sree*	92	89	90	88	93	452
11	*Harsha Vardhan*	76	70	73	72	84	375
12	*Sneha Reddy*	85	87	82	83	90	427
13	*Vinay Kumar*	79	77	75	71	88	390
14	*Sanjana M*	88	90	85	86	92	441
15	*Manoj Krishna*	73	78	71	70	83	375

8. For the data given below:

a. Format Quantity as Number with no decimals.
b. Format Unit Price as Currency.
c. Calculate Total Price = Quantity * Unit Price.
d. Add currency to Total Price column.
e. Format Purchase Date as Long Date.

S.No.	Item Name	Quantity	Unit Price	Total Price	Purchase Date
1	Pen	25.235	5.5		12/1/2025
2	Notebook	12	15		5/2/2025
3	Pencil Box	8	45.25		18-01-2025
4	Eraser Pack	41.35	8.75		22-02-2025
5	Marker	30.45	12.5		28-01-2025
6	Ruler	18.96	6		1/3/2025
7	Highlighter	10	25.4		15-02-2025
8	Stapler	5	120.99		10/3/2025
9	Glue Stick	30.83	9.35		17-02-2025
10	File Folder	40	4.75		25-01-2025

a. Format Quantity as Number with No Decimals

To format the Quantity column, first select all the quantity values. Then go to **Home → Number group → Number**. After that, set Decimal Places = 0 to display whole numbers only.

b. Format Unit Price as Currency

Select the Unit Price column. Then go to **Home → Number group → Currency**. This will display all values with the currency symbol and two decimal places.

c. Calculate Total Price = Quantity × Unit Price

Click the first cell under the Total Price column. Type the **formula =Quantity*UnitPrice** and press Enter. Then use the fill handle to drag the formula down for all rows to calculate the total price for each item.

d. Add Currency to Total Price Column

Select the Total Price column. Then go to **Home → Number group → Currency**. This will show all total prices with the currency symbol and two decimal places.

e. Format Purchase Date as Long Date

Select all the dates in the Purchase Date column. Then go to **Home → Number group → Number Format → Long Date.** The dates will now display in full format, such as "Tuesday, 18 November 2025".

Output:

S.No.	Item Name	Quantity	Unit Price	Total Price	Purchase Date
1	Pen	25	₹ 5.50	₹ 138.79	Sunday, 12 January, 2025
2	Notebook	12	₹ 15.00	₹ 180.00	Wednesday, 5 February, 2025
3	Pencil Box	8	₹ 45.25	₹ 362.00	Saturday, 18 January, 2025
4	Eraser Pack	41	₹ 8.75	₹ 361.81	Saturday, 22 February, 2025
5	Marker	30	₹ 12.50	₹ 380.63	Tuesday, 28 January, 2025
6	Ruler	19	₹ 6.00	₹ 113.76	Saturday, 1 March, 2025
7	Highlighter	10	₹ 25.40	₹ 254.00	Saturday, 15 February, 2025
8	Stapler	5	₹ 120.99	₹ 604.95	Monday, 10 March, 2025
9	Glue Stick	31	₹ 9.35	₹ 288.26	Monday, 17 February, 2025
10	File Folder	40	₹ 4.75	₹ 190.00	Saturday, 25 January, 2025

9. In a new worksheet, create the following using the Fill Series (Linear) features.

a. In Column A, enter the number 1 in the first row. Use Fill Series to continue the sequence up to 20 with step 1

b. In Column B, enter the number 2 in the first row. Use Fill Series to continue the sequence up to 20 with step value 2.

c. In Column C, enter the number 20 in the first row. Use Fill Series to continue the sequence up to 200 using step value 25.
d. In Column D, enter the number 250. Use Fill Series to continue the sequence up to 0 using the step value as -25.

e. In Column E, enter the number 45. Use Fill Series to continue the sequence up to -20 using the step value as -5.

a. Fill Series in Column A

In **Column A,** enter **the number 1 in the first row**. Then **select the cell**, go to **Home → Editing → Fill → Series.** In the dialog box, choose **Series in: Columns**, **Type: Linear**, **Step Value: 1**, and **Stop Value: 20.** Click OK. The numbers 1 to 20 will fill the column automatically.

b. Fill Series in Column B

In Column B, type 2 in the first cell. Then go to Home → Editing → Fill → Series. Select Series in: Columns, Type: Linear, Step Value: 2, and Stop Value: 20. Click OK. The column will now display 2, 4, 6, … up to 20.

c. Fill Series in Column C

In Column C, type 20 in the first cell. Go to Home → Editing → Fill → Series. Choose Series in: Columns, Type: Linear, Step Value: 25, and Stop Value: 200. Click OK. The column will display 20, 45, 70, … up to 200.

d. Fill Series in Column D

In Column D, enter 250 in the first cell. Then go to Home → Editing → Fill → Series. Select Series in: Columns, Type: Linear, Step Value: -25, and Stop Value: 0. Click OK. The column will show 250, 225, 200, … down to 0.

e. Fill Series in Column E

In Column E, type 45 in the first cell. Go to Home → Editing → Fill → Series. Select Series in: Columns, Type: Linear, Step Value: -5, and Stop Value: -20. Click OK. The column will now display 45, 40, 35, … down to -20.

Output:

Column A	Column B	Column C	Column D	Column E
1	2	20	250	45
2	4	45	225	40
3	6	70	200	35
4	8	95	175	30
5	10	120	150	25
6	12	145	125	20
7	14	170	100	15
8	16	195	75	10
9	18		50	5
10	20		25	0
11			0	-5
12				-10
13				-15
14				-20
15				
16				
17				
18				
19				
20				

10. In a new worksheet, create the following using Fill Series Growth Features.

a. In Column A, enter the number 1 in the first row. Use Fill Series to continue the sequence up to 200 with step 2.

b. In Column B, enter the number 2 in the first row. Use Fill Series to continue the sequence up to 400 with step value 2.

c. In Column C, enter the number 3 in the first row. Use Fill Series to continue the sequence up to 1500 using step value 5.

d. In Column D, enter the number 25. Use Fill Series to continue the sequence up to 2500 using the step value as 5.

e. In Column E, enter the number 15. Use Fill Series to continue the sequence up to -1500 using the step value as 3.

a. Fill Series in Column A (Type: Growth)

In **Column A**, **type 1** in the first cell. Then go to **Home → Editing → Fill → Series**. In the dialog box, select **Series in: Columns**, **Type: Growth**, **Step Value: 2**, and **Stop Value: 200**. Click OK. The sequence will fill the column using multiplication, growing the values by a factor of 2 until reaching 200.

b. Fill Series in Column B (Type: Growth)

In Column B, enter 2 in the first cell. Go to Home → Editing → Fill → Series. Choose Series in: Columns, Type: Growth, Step Value: 2, and Stop Value: 400. Click OK. The numbers will increase by multiplying each value by 2 until 400 is reached.

c. Fill Series in Column C (Type: Growth)

In Column C, type 3 in the first cell. Go to Home → Editing → Fill → Series. Select Series in: Columns, Type: Growth, Step Value: 5, and Stop Value: 1500. Click OK. The column will display numbers growing exponentially, multiplying by 5 each time until 1500 is reached.

d. Fill Series in Column D (Type: Growth)

In Column D, enter 25 in the first cell. Then go to Home → Editing → Fill → Series. Choose Series in: Columns, Type: Growth, Step Value: 5, and Stop Value: 2500. Click OK. The sequence will grow by multiplying each value by 5 until reaching 2500.

e. Fill Series in Column E (Type: Growth)

In Column E, type 15 in the first cell. Go to Home → Editing → Fill → Series. Select Series in: Columns, Type: Growth, Step Value: -3, and Stop Value: -1500. Click OK. The numbers will decrease in a growth pattern, multiplying each value by -3 until the last value is -1500.

Note: Excel does not allow negative multiplication in Growth series.

	A	B	C	D	E
1	Column A	Column B	Column C	Column D	Column E
2	1	2	3	25	15
3	2	4	15	125	
4	4	8	75	625	
5	8	16	375		
6	16	32			
7	32	64			
8	64	128			
9	128	256			

Python

11. Write a program to print the following sentences, Hello Everyone and Welcome to the world of Python.

```
message="Hello Everyone & Welcome to the world of Python"
print(message)
```

output:

```
>>>
= RESTART: C:\Users\prasa\AppData\Local\Programs\
12\prog1.py
Hello Everyone & Welcome to the world of Python
```

12. Write a program to print to statements "Hello World" and "I am learning Python". a. Concatenate the strings b. Split the strings

```
message1="Hello World"
message2="I am learning Python"
message3=message1+message2
print("Concatenated string=", message3)
str="one,two,three"
words=str.split(',')
print("Splitted words=",words)
```

output:

```
= RESTART: C:\Users\prasa\AppData\Local\Programs\Pytl
12\prog2.py
Concatenated string= Hello WorldI am learning Python
Splitted words= ['one', 'two', 'three']
```

13. Write a program to insert student details – Name, Father's name, Hall ticket number, Date of birth, age, Stream of study, College name.

```
name=input("Enter your name:")
fname=input("Enter your father's name:")
htno=int(input("Enter your hallticket no:"))
dob=input("Enter your data of birth:")
stream=input("Enter your stream of study:")
```

```
college=input("Enter your college name:")


print("**********************")
print("Name:", name)
print("Father's Name:", fname)
print("Hall Ticker no:", htno)
print("Date of Birth:", dob)
print("Stream of Study:", stream)
print("College Name:", college)
```

output:

```
= RESTART: C:\Users\prasa\AppData\Local\
12\prog3.py
Enter your name:ABC
Enter your father's name:DEF
Enter your hallticket no:110025538050
Enter your data of birth:01-02-2007
Enter your stream of study:B.Com.(B.A.)
Enter your college name:IIMC
**********************
Name: ABC
Father's Name: DEF
Hall Ticker no: 110025538050
Date of Birth: 01-02-2007
Stream of Study: B.Com.(B.A.)
College Name: IIMC
```

14. Write a program to prepare the list of rainbow colours and print the second colour in the "Rainbow" list.

```
rainbow=['Violet','Indigo','Blue','Green','Yellow', 'Orange','Red']
print(rainbow[0])
```

output:

```
= RESTART: C:\
12\prog4.py
Violet
```

15. Write a program to assign two values to the variables a and b and perform the mathematical operations addition, subtraction, multiplication, division, square of a number.

```
a=int(input("Enter the value of A:"))
b=int(input("Enter the value of B:"))
Add=a+b
print("Addition=",Add)
Sub=a-b
print("Subtraction=",Sub)
Mult=a*b
print("Multiplication=",Mult)
Div=a/b
print("Division=",Div)
Sq=a**2
print("Square=",Sq)
```

output:

```
= RESTART: C:/Users/prasa
12/prog5.py
Enter the value of A:10
Enter the value of B:20
Addition= 30
Subtraction= -10
Multiplication= 200
Division= 0.5
Square= 100
```

SQL

Create a **Supplier** table as shown below :

Sup_No (Primary Key)	Sup_Name	Item_Supplied	Item_Price	City
S1	Suresh	Keyboard	400	Hyderabad
S2	Kiran	Processor	8000	Delhi
S3	Mohan	Mouse	350	Delhi
S4	Ramesh	Processor	9000	Bangalore
S5	Manish	Printer	6000	Mumbai
S6	Srikanth	Processor	8500	Chennai

```
SQL> create table supplier
        (
        sno varchar(2) primary key,
        sname varchar(10),
        item varchar(10),
        price number(4),
        city varchar(10)
        );
Table created.
SQL> insert into supplier values('&sno','&sname','&item',&price,'&city');
Enter value for sno: S1
Enter value for sname: Suresh
Enter value for item: Keyboard
Enter value for price: 400
Enter value for city: Hyderabad
old   1: insert into supplier values('&sno','&sname','&item',&price,'&city')
new   1: insert into supplier values('S1','Suresh','Keyboard',400,'Hyderabad')
1 row created.
SQL> /
Enter value for sno: S2
Enter value for sname: Kiran
Enter value for item: Processor
```

```
Enter value for price: 8000
Enter value for city: Delhi
old   1: insert into supplier values('&sno','&sname','&item',&price,'&city')
new   1: insert into supplier values('S2','Kiran','Processor',8000,'Delhi')
1 row created.

SQL> /
Enter value for sno: S3
Enter value for sname: Mohan
Enter value for item: Mouse
Enter value for price: 350
Enter value for city: Delhi
old   1: insert into supplier values('&sno','&sname','&item',&price,'&city')
new   1: insert into supplier values('S3','Mohan','Mouse',350,'Delhi')
1 row created.

SQL> /
Enter value for sno: S4
Enter value for sname: Ramesh
Enter value for item: Processor
Enter value for price: 9000
Enter value for city: Banglore
old   1: insert into supplier values('&sno','&sname','&item',&price,'&city')
new   1: insert into supplier values('S4','Ramesh','Processor',9000,'Banglore')
1 row created.
SQL> /
Enter value for sno: S5
Enter value for sname: Manish
Enter value for item: Printer
Enter value for price: 6000
Enter value for city: Mumbai
```

old 1: insert into supplier values('&sno','&sname','&item',&price,'&city')

new 1: insert into supplier values('S5','Manish','Printer',6000,'Mumbai')

1 row created.

SQL> /

Enter value for sno: S6

Enter value for sname: Srikanth

Enter value for item: Processor

Enter value for price: 8500

Enter value for city: Chennai

old 1: insert into supplier values('&sno','&sname','&item',&price,'&city')

new 1: insert into supplier values('S6','Srikanth','Processor',8500,'Chennai')

1 row created.

16. Write sql query to display Supplier numbers and Supplier names whose name starts with 'R'

```
SQL> select sno,sname
        from supplier
        where sname like 'R%';

SNO SNAME
------ ----------
S4     Ramesh
```

17. Write sql query to display the name of suppliers who supply Processors and whose city is Delhi.

```
SQL> select sname
        from supplier
        where item='Processor' and city='Delhi';

SNAME
----------
Kiran
```

18. Write sql query to display the names of suppliers who supply the same items as supplied by Ramesh.

```
SQL> select sname
        from supplier
```

where item=(select item from supplier where sname='Ramesh');

SNAME

Kiran

Ramesh

Srikanth

19. Write sql query to increase the price of Keyboard by 200.

SQL> update supplier

set price=price+200

where item='Keyboard';

1 row updated.

SQL> select * from supplier;

SNO SNAME ITEM PRICE CITY

---- ---------- ---------- ---------- ----------

S1 Suresh Keyboard 600 Hyderabad

S2 Kiran Processor 8000 Delhi

S3 Mohan Mouse 350 Delhi

S4 Ramesh Processor 9000 Banglore

S5 Manish Printer 6000 Mumbai

S6 Srikanth Processor 8500 Chennai

20. Write sql query to display supplier numbers, Suplier names and itemprice for suppliers in delhi in the ascending order of itemprice.

SQL> select sno,sname,price

from supplier

where city='Delhi'

order by price asc;

SNO SNAME PRICE

---- ---------- ----------

S3 Mohan 350

S2 Kiran 8000